

REMARKS

Claims 1-4, 6 and 9-26 have been amended. Claim 27 has been added. Claims 1-27 are currently pending. Reconsideration of claims 1-27 is respectfully requested in view of the following remarks.

OBJECTION TO CLAIMS 14, 16, AND 19-26

The Examiner objected to claims 14, 16 and 20-26 for improperly depending on themselves or on other objected to claims. Similarly, the Examiner rejected method claim 19 for improperly depending on computer program product claim 1. The applicant has amended claims 14, 16, 19 and 20 to correct these improper dependencies, and respectfully submits that all claims are now in proper dependent form. Accordingly, the applicant respectfully requests the Examiner withdraw his objection to claims 14, 16 and 19-26.

REJECTION OF INDEPENDENT CLAIMS 1 AND 18

Independent claims 1 and 18 stand rejected as obvious in view of U.S. Patent No. 6,205,261 to Goldberg (“Goldberg”) and U.S. Patent No. 5,999,949 to Crandall (“Crandall”). The applicant respectfully disagrees, and traverses the rejection of claims 1 and 18 for the reasons noted below.

Claims 1 and 18, as amended, recite a computer program product and method for resolving an ambiguous word in an electronic document comprising “searching the document for a word that is ambiguous *because it contains* one or more *ambiguous typesetting placeholders*.” The specification identifies typesetting placeholders as “symbols, characters, or commands which are put in a document to format the document . . . but which are not substantive parts of the document. Examples . . . include, but are not limited to, spaces, hyphens, commas, tabs, and end-of-line characters.” *Specification* at p. 5, ll. 10-13. Searching a “document for a word that is ambiguous *because it contains* one or more *ambiguous typesetting placeholders*” thus amounts

to searching the document for words that contain ambiguous typesetting placeholders such as ambiguous hyphens or white spaces.

For example, the white space between any two characters in a document, such as the white space between the letters ‘n’ and ‘t’ in the character string ‘i-n-t-o,’ is a typesetting placeholder. *See id.; see also* claims 15 and 26. If the white space is less than about 1/20th of an ‘em’ it can be unambiguously identified as kerning between the letters ‘n’ and ‘t’ in the word ‘into.’ *See Specification* at p. 2, ll. 1-3. Similarly, if the white space is greater than about 1/2 an ‘em’ it can be unambiguously identified as a blank space between the words ‘in’ and ‘to.’ *See id.* at ll. 5-6. However, if the white space is between about 1/20th of an ‘em’ and about 1/2 an ‘em,’ it cannot be unambiguously identified as either white space or kerning, and is therefore an ambiguous typesetting placeholder. Thus, when the ambiguous typesetting placeholder is white space between characters in a document, “searching [a] document for a word that is ambiguous *because it contains* one or more *ambiguous typesetting placeholders*” amounts to searching the document for character strings containing letters that are separated by white spaces that are greater than 1/20th of an ‘em’ and less than 1/2 an ‘em.’

The Examiner relies on the Goldberg patent, and in particular on element 615 of figure 6A of the Goldberg patent, to disclose “searching [a] document for a word that is ambiguous *because it contains* one or more *ambiguous typesetting placeholders*.” The applicant respectfully disagrees. Rather than disclosing searching a document for words that contain ambiguous typesetting placeholders, figure 6A of the Goldberg patent discloses searching a document for misspelled or misrecognized words. The Goldberg patent identifies misrecognized words as words that fail one or more of a spell check algorithm, a grammar check algorithm, or a natural language algorithm. *See Goldberg* at col. 9, l. 49 to col. 10, l. 39. Significantly, the Goldberg patent does not identify words that contain an ambiguous typesetting placeholder (such as a hyphen at the end of a line or a non-standard amount of white space between characters) as misspelled or misrecognized words. Consequently, the Goldberg patent fails to disclose “searching [a] document for a word that is ambiguous *because it contains* one or more *ambiguous typesetting placeholders*,” as recited in claims 1 and 18, and the Examiner has failed

to establish a *prima facie* case that claims 1 and 18 are obviousness in view of the Goldberg and Crandall patents. The Examiner's rejection should therefore be withdrawn for at least this reason.

Moreover, claims 1 and 18, as amended, recite a computer program product and method for resolving an ambiguous word in an electronic document comprising "using a dictionary to resolve the ambiguous word *by resolving* the one or more ambiguous typesetting placeholders occurring in the word." Thus, a dictionary is used to resolve ambiguous words by resolving the underlying ambiguous typesetting placeholders that those words contain. For example, an ambiguous amount of white space between the letters 'n' and 't' in the ambiguous word or character string 'i-n-t-o' can be resolved as kerning to create the single word 'into' or can be resolved as white space to create the words 'in' and 'to.' A dictionary can be used to determine which of these two resolutions of the underlying ambiguous typesetting placeholder is the correct resolution by searching for the words 'in,' 'to,' and 'into.' In this particular example, the dictionary will find each of the words 'in', 'to', and 'into', and so either resolution is acceptable and a user may be prompted to enter the correct resolution, or a default solution may be used.

In general, when only those words that are obtained by resolving the ambiguous typesetting placeholder in one way but not in any other way can be found in a dictionary, that resolution is accepted as the correct one. This is explicitly recited in claim 6. By contrast, when none of the words obtained by resolving the ambiguous typesetting placeholder in any way can be found in a dictionary, a user can be prompted to enter the correct resolution. This is explicitly recited in claim 7. Similarly, when different words that are obtained by resolving the ambiguous typesetting placeholder in more than one way can be found in a dictionary, a user can be prompted to enter the correct resolution. This is explicitly recited in claim 8. Regardless of whether none, one, or several words are found, a dictionary is used "to resolve the ambiguous word by resolving the one or more ambiguous typesetting placeholders occurring in the word," as recited in claims 1 and 18.

The Examiner reads the Goldberg patent to disclose this limitation in the passage at column 10, lines 40-67. The applicant respectfully disagrees. Since the Goldberg patent never

identifies as ambiguous those words that contain ambiguous typesetting placeholders, it cannot use a dictionary to try to resolve ambiguous words by resolving the underlying ambiguous typesetting placeholders. Instead, the Goldberg patent discloses using a spell check algorithm to identify misspelled words, and then using that algorithm to perform “a dictionary look-up procedure, according to which the spell checking algorithm selects from the . . . dictionary those words that are most similar in spelling to the misrecognized word.” *Goldberg* at col. 10, ll. 46-51. Alternatively, the Goldberg patent discloses using a grammar or natural language algorithm to identify misrecognized words, and to use the same “dictionary look-up procedure to generate reference words for [the] grammatically or contextually incorrect words.” *Id.* at ll. 51-54. Thus, Goldberg merely discloses using a dictionary to generate similarly spelled words. Significantly, it fails to disclose or to even suggest generating words by resolving ambiguous typesetting placeholders, or using a dictionary to resolve words that contain ambiguous typesetting placeholders by first resolving the underlying typesetting placeholders as required by claims 1 and 18. Consequently, the Examiner’s rejection of claims 1 and 18 fails to establish a *prima facie* case of obviousness for at least this reason as well, and should be withdrawn.

PATENTABILITY OF DEPENDENT CLAIMS 2-16 AND 19-27

The Examiner rejected claims 4-8, 14-15 and 19-22 as obvious in view of the Goldberg and Crandall patents on the same grounds as claims 1 and 18; rejected claims 2 and 3 as obvious in view of the Goldberg and Crandall patents in further view of U.S. Patent No. 5,875,264 to Froessl (which is relied on solely for allegedly disclosing adding words to an initially empty dictionary or to a dictionary obtained by processing previous documents); rejected claims 9-12 and 23-26 as obvious in view of the Goldberg and Crandall patents in further view of U.S. Patent No. 5,829,000 to Huang (which is relied on solely for allegedly disclosing using a dictionary to select that ambiguity resolution that contains the largest or smallest word, or the fewest or most words); and rejected claims 13 and 16 as obvious in view of the Goldberg and Crandall patents in further view of U.S. Patent No. 4,435,778 to Cason (which is relied on solely for allegedly

disclosing identifying ambiguous hyphens and white spaces as ambiguous typesetting placeholders).

The applicant notes that claims 2-16 and new claim 27 depend from and contain all the limitations of claim 1, and are therefore not obvious in view of the Goldberg and Crandall patents and any of the other patents relied on by the Examiner for at least the same reasons that claim 1 is not obvious in view of the Goldberg and Crandall patents as fully discussed above. Similarly, claims 19-26 depend from and contain all the limitations of claim 18, and are therefore not obvious in view of the Goldberg and Crandall patents and any of the other patents relied on by the Examiner for at least the same reasons that claim 18 is not obvious in view of the Goldberg and Crandall patents as discussed above.

REJECTION OF INDEPENDENT CLAIM 17

Like claim 1, independent claim 17 stands rejected as obvious in view of the Goldberg and Crandall patents. The applicant respectfully disagrees, and traverses the rejection of claims 17 as obvious in view of these patents for the reasons noted below.

Like claim 1, independent claim 17 as amended, recites a computer program product for resolving an ambiguous word in an electronic document comprising “searching the document for a word that is ambiguous *because it contains* one or more *ambiguous typesetting placeholders*.” The Examiner relies on the Goldberg patent to disclose this limitation of claim 17. However, as fully explained above in reference to the rejection of claims 1 and 18, the Goldberg patent fails to disclose or to even suggest “searching [a] document for a word that is ambiguous *because it contains* one or more *ambiguous typesetting placeholders*.” Therefore, the Examiner has failed to establish a *prima facie* case that claim 17 is obviousness in view of the Goldberg and Crandall patents, and the Examiner’s rejection of claim 17 should be withdrawn for at least this reason.

Moreover, claim 17 recites “*creat[ing]* a set of candidate solutions for the ambiguous word . . . by uniquely resolving the one or more *ambiguous typesetting placeholders* in the ambiguous word.” Again, using the white space between the letters ‘n’ and ‘t’ in the character string ‘i-n-t-o’ as an example, the set of candidate solutions created by uniquely resolving the

ambiguous white space would consist of two solutions. The first solution is created by resolving the white space as kerning, and consists of the word ‘into.’ The second solution is created by resolving the white space as a blank space, and consists of the two words ‘in’ and ‘to.’

The Examiner relies on the Goldberg patent to disclose this limitation of claim 17 in the passages at column 10, lines 40-67 and at column 17, lines 1-67. The applicant respectfully disagrees. Since the Goldberg patent never identifies as ambiguous those words that contain ambiguous typesetting placeholders, it cannot “*create a set of candidate solutions . . . by uniquely resolving the one or more ambiguous typesetting placeholders in an ambiguous word.*” Instead, in the column 10 passage cited by the Examiner, the Goldberg patent discloses using a spell check algorithm to identify misspelled words, and then to perform “a dictionary look-up procedure, according to which the spell checking algorithm selects from the . . . dictionary those words that are most similar in spelling to the misrecognized word.” *Goldberg* at col. 10, ll. 46-51. It also discloses using a grammar or natural language algorithm to identify misrecognized words, and then using the same “dictionary look-up procedure to generate reference words for [the] grammatically or contextually incorrect words.” *Id.* at ll. 51-54. Alternatively, in the column 17 passage cited by the Examiner, the Goldberg patent discloses replacing character sequences in misrecognized words with character sequences in predefined “confusion” sets. For example, Goldberg discloses replacing the letter ‘f’ in the misrecognized word ‘fet,’ with certain character sequences in the predetermined “confusion” set of the letter ‘f,’ namely, the character sequences ‘b’, ‘d’, ‘r’, ‘p’, ‘8’, ‘3’, ‘e’, ‘5’, ‘i3’, ‘io’, and ‘lo.’ *See id.* at col. 17, ll. 14-20. In doing so, Goldberg obtains the reference words ‘bet’, ‘det’, ‘ret’, ‘pet’, ‘8et’, ‘3et’, ‘eet’, ‘5et’, ‘i3et’, ‘ioet’, and ‘loet’ from the misrecognized word ‘fet.’ *Id.*

Thus, Goldberg merely discloses using a dictionary to generate similarly spelled words, or replacing certain characters in a misrecognized word with character sequences in that certain character’s pre-determined “confusion” set. Significantly, because the Goldberg patent fails to disclose finding words with ambiguous typesetting placeholders, it fails to disclose or to even suggest “creat[ing] a set of candidate solutions . . . by uniquely resolving the one or more ambiguous typesetting placeholders” in the ambiguous word as required by claim 17. Therefore,

Applicant : Richard L. Sites
Serial No. : 09/774,191
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Page : 18 of 18

Attorney's Docket No.: 07844-437001 / P404

the Examiner's rejection of claim 17 fails to establish a *prima facie* case of obviousness for at least this reason as well, and should be withdrawn.

Claims 1-27 are believed to be in condition for allowance, which action is kindly requested. Please apply the appropriate charges to deposit account 06-1050 for a one-month extension of time and for the additional dependent claim. Please apply any other applicable charges or credits to deposit account 06-1050.

Respectfully submitted,

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John F. Horvath
Reg. No. 47,663

Customer No. 21876
Telephone: (302) 652-5070
Facsimile: (302) 652-0607